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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/617,556

07/17/2000

Douglas P. Hart

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8301

23535

7590

01/30/2006

MEDLEN & CARROLL, LLP
101 HOWARD STREET
SUITE 350
SAN FRANCISCO, CA 94105

EXAMINER

BINDA, GREGORY JOHN

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/617,556	HART ET AL.	
	Examiner	Art Unit	
	Greg Binda	3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 51-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 51-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

2. The replacement drawing filed Dec 8, 2005 is approved.

Claim Rejections - 35 USC § 102

3. Claims 51 & 53-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Grorich, US 3,973,781. Fig. 1c shows a seal assembly comprising a face seal made of elastomeric material (see also “rubber” in col. 11, line 7) comprising a unitary seal ring 15c bonded to a mounting ring 14c wherein the seal ring comprises a contact surface 1c with an inner peripheral edge K2 and an outer peripheral edge K1, the contact surface further comprising integral protrusions (see also “facets” in col. 11, line 38) disposed interior to the outer peripheral edge. Fig. 8 shows the seal assembly comprising a face seal 10 having the same features as the face seal 15c (see also col. 13, lines 26+) in combination with a flat second surface (see also “sliding surface” in col. 13, line 32) such that the protrusions come into contact with the flat surface to produce a seal having a region of intensified contact interior to the outer peripheral edge that redirects incoming dirt and debris away from the region of intensified contact.

Claim Rejections - 35 USC § 103

4. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grorich in view of McNickle et al, US 5,558,341 (McNickle). Grorich shows a seal assembly comprising all the

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limitations of the claim except Grorich does not expressly disclose the protrusions having recesses. In col. 2, line 43 through col. 3, line 15, McNickle teaches providing protrusions with recesses (see “each of the pads may have pocket” in col. 2, lines 48 & 49), provides a seal assembly with means for cooling and self-regulating its size (see col. 3, lines 5 & 12). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the seal assembly of Grorich by making the protrusions of the face seal with protrusions in order to provide the seal assembly with means for cooling and self-regulating its size as taught by McNickle.

Response to Arguments

5. Applicant's arguments filed Dec 8, 2005 have been fully considered but they are not persuasive.

a. Applicant argues that since the top surfaces of the protrusions disclosed by Grorich make contact with the “second surface” there are no protrusions protruding from the contact surface. The argument is does not make any sense. The top surfaces of the protrusions in Grorich make contact with the second surface the same way the applicant claims his protrusions make contact with a second surface (see claim 51, lines 10 & 11). It is not even clear how the face seal could make contact with the second surface without the top surface of the protrusions making contact with the second surface.

b. Applicant argues that Grorich fails to show “an inner peripheral edge which defines the boundary within the contact surface containing a clean environment”. It is

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not clear why this is an issue since there is nothing in the claims that requires this, nor is applicant's inner peripheral edge 34 shown performing such a function.

c. Applicant argues that the facets/protrusions disclosed by Grorich fail to extend from a contact surface. However, applicant need only look at the passage he cited to see that the protrusions in Grorich do extend from a contact surface. See "each frustopyramid [i.e. protrusion] which faces the seal edge is substantially normal to [i.e. extends from] the contact surface" in col. 3, lines 17-20.

d. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the suggestion to combine is given expressly in McNickle as noted in the rejection at item 4 above.

Conclusion

6. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114.

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See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (571) 272-7077. The examiner can normally be reached on M-F 9:30 am to 7:00 pm with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Greg Binda
Primary Examiner
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